

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION: JOHN N. SHANNON, ET AL.

GROUP ART UNIT: 1632

SERIAL NUMBER: 09/811,509

EXAMINER: CHEN, SHIN LIN

FILED: MARCH 20, 2001

FOR: METHODS AND ORGANISMS FOR CONCENTRATING AND RECOVERING METALS AND MINERALS FROM  
AQUEOUS MEDIA

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.97

Assistant Commissioner for Patents  
PO BOX 1450  
ALEXANDRIA, VA 22313-1450

Sir:

Applicant(s) wish(es) to disclose the following information.

REFERENCES

- ☒ Applicant(s) wish(es) to make of record the documents listed on the attached Form PTO-1449. Copies of the listed documents are attached, where required, as are either statements of relevancy or any readily available full or partial English translations of any non-English-language documents.

RELATED CASES

- ☐ Attached is a list of Applicant's(s') pending applications and issued patents which may be related to the present application. Copies of the documents, where required, are attached along with Form PTO-1449.

CERTIFICATION

The undersigned certifies that

- ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign or international patent office in a counterpart foreign or international application for the first time (to the knowledge of the undersigned, having made reasonable inquiry) not more than three months prior to the filing of this statement.
- ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign or international patent office in a counterpart foreign or international application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement.

BASIS FOR CONSIDERATION

This Information Disclosure Statement is filed:

- ☐ without fee and within three months of the filing date of the application.
- ☐ without fee and within three months of the date of entry of the U.S. national stage.
- ☐ without fee and before the mailing date of a first Office Action on the merits (to the knowledge of the undersigned).
- ☐ without fee and with the appropriate certification above.
- ☐ without fee and with a new CPA application.
- ☐ without fee and with a Request for Continued Examination.
- ☒ with fee and before the mailing date of any of a Final Office Action, Notice of Allowance or an action that otherwise closes prosecution (to the knowledge of the undersigned).
- ☐ with fee, appropriate certification above, and before payment of the Issue Fee.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to Deposit Account No. 50-1442.

Respectfully submitted,

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Form PTO 1449 (Modified)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	DOCKET NO.	SERIAL NO.
		9958-002-27 CONT	09/811,509
		APPLICANT	
		JOHN N. SHANNON, ET AL.	
LIST OF REFERENCES CITED BY APPLICANT (Use Several Sheets if Necessary)		FILING DATE	GROUP ART UNIT
		MARCH 20, 2001	1632
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)			
	1A	Reith, F., "Evidence For a Microbially Mediated Biogeochemical Cycle of Gold - A Literature Review", Advances in Regolith, pp. 336-341 (2003)	
	1B	Brooks, et al., "The Noble Metal Biogeochemistry of Microorganisms", Noble Metals and Biological Systems, their Role In Medicine, Mineral Exploration, and the Environment, Robert R. Brooks, Ed., CRC Press pp. 159, 168, 169, (1992).	
	2A	Carpenter, E.J., "Marine Cyanobacterial Symbioses", Biology and Environment: Proceedings of the Royal Irish Academy, 102(1):15-18 (2002).	
	2B	Gardea-Torresdey, et al., "Ability of Immobilized Cyanobacteria to Remove Metal Ions From Solution and Demonstration of the Presence of Metallothionein Genes in Various Strains", Journal of Hazardous Substance Research, Volume 1, pp. 2-1 to 2-18 (1998).	
	3A	Unson, et al., "A Brominated Secondary Metabolite Synthesized by the Cyanobacterial Symbiont of a Marine Sponge and Accumulation of the Crystallin Metabolite in the Sponge Tissue, Marine Biology 119:1-11 (1994).	
	3B	Liu, et al., "Metallothionein and Cpx-ATPase Handle Heavy-Metal Tolerance in the Filamentous Cyanobacterium Oscillatoria brevis", Elsevier Science B.V., 1 page (2003).	
	4A	Burja, et al., "Microbial Symbionts of Great Barrier Reef Sponges", Memoirs of the Queensland Museum 44:63-75 (1999).	
	5A	Malekzadeh, et al., "Accumulation of Heavy Metals By a Bacterium Isolated From Electroplating Effluent", proceeding of the Biotechnology Risk Assessment Symposium, Canada, pp. 388-398 (1996).	
	5B	Kelecom, A., "Secondary Metabolites From Marine Microorganisms", An. Acad. Bras. Cienc., 74(1):151-170 (2002).	
	5C	Jayatilake, et al., "Metabolites From An Antarctic Sponge-Associates Bacterium, Pseudomonas aeruginosa", J. Nat. Proc. 59:293-296 (1996).	
	5D	Highan, et al., "Cadmium-Binding Proteins in Pseudomonas putida: Pseudothioneins", Environmental Health Perspectives 65:5-11 (1986).	
	5E	Langley, et al., "Effect of O-Side-Chain-Lipopolysaccharide Chemistry on Metal Binding", AEM, 65(2):489 (1998).	
EXAMINER			DATE CONSIDERED
*EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.			